Domination and Social Integration in the Behavior of Kindergarten Children in an Experimental Play Situation
Author(s): Harold H. Anderson
Source: *The Journal of Experimental Education*, Vol. 8, No. 2, Child Development (Dec., 1939), pp. 123-131
Published by: Taylor & Francis, Ltd.
Stable URL: http://www.jstor.org/stable/20150594
Accessed: 05-07-2016 12:16 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Taylor & Francis, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Experimental Education*

Journal of Experimental Education

Volume VIII DECEMBER, 1939 Number 2

DOMINATION AND SOCIAL INTEGRATION IN THE BEHAVIOR OF KINDERGARTEN CHILDREN IN AN EXPERIMENTAL PLAY SITUATION*

HAROLD H. ANDERSON
Department of Psychology, University of Illinois

In previous studies with children of preschool age (1)(2) certain hypotheses regarding the dynamic nature of human relations were verified for an experimental play situation. It was held hypothetically, however, that the same principles of human behavior applied as well to the social and psychological interplay of children of all ages and to adult–child relations. During the past year reliable techniques have been developed for measuring the behavior of kindergarten *teachers* in terms of the defined concepts of domination and social integration. These studies have been reported elsewhere. (3)(4)

The investigation reported herewith constituted a study of dominative and of socially integrative behavior of kindergarten children in an experimental play situation. The methods, materials and definitions of terms were the same as for the previous study of preschool children. The results have been examined first, for similarities and differences in the behavior of the kindergarten children as compared with the children used in the previous study; and second, for the relation of the findings on kindergarten children to the formulated hypotheses regarding the dynamic nature of behavior.

Definitions of Terms. Briefly, "The use of force, commands, threats, shame, blame, attacks against the personal status of an individual are called dominative techniques of responding to others. Domination is characterized by a rigidity or inflexibility of purpose, by an unwillingness to admit the contribution of another's experience, desires, purposes or judgment in the determining of goals which concern others. — Domination stifles differences; domination attempts to make others behave according to one's own standards or purposes.—Domination involves force or threats of force or of some other form of the expenditure of energy against another.—(Domination is self-protective; it)—is behavior of one who is so insecure that he is not free to utilize new data, new information, new experience. Domination is an attempt at atomistic living; the desires, purposes, standards, values, judgment, welfare of others do not count; it is rugged individualism of a highly in-growing order. Domination is the antithesis of the scientific attitude; it is an expression of resistance against change (or differences); it is consistent with bigotry and with autocracy. It is the technique of a dictatorship."

It should be pointed out that the terms *dominate, dominative, dominating,* and *domination* are used here to designate techniques of behaving. As such they are not to be confused with the terms *dominant* and *dominance.* These latter terms refer to defined relationships which may or may not be achieved by means of the techniques of domination or the use of force or coercion.

If, instead of compelling the companion to do as one says, one asks the companion and by explanation makes the request meaningful to the other so that the other can voluntarily cooperate, such behavior is said to be an expression not so much of pursuing one's own unique purposes as attempting to discover and get satisfactions through common purposes. For such expenditure of energy in common purposes, for an attempt to reduce instead of augment or incite conflict of differences the term *integrative behavior* is used. The person who can change his mind when confronted with new evidence which has grown out of the experience of another is said to be *integrating differences.* Integrative behavior as the term is used here is consistent with the scientific point of view, the objective approach. It designates behavior that is flexible, growing, learning.

---

* Read at the meetings of the Midwestern Psychological Association, May 5, 1939, University of Nebraska, Lincoln.

The term integration is not used here as it has been used by some in contrast with differentiation. It is believed that the two processes are inseparable and are merely different aspects of the same psychological or biological phenomenon. With the integration of differences something new is created that never has existed before; this emergence of originals through the integration of differences is itself a differentiation.

Integrative behavior is thus consistent with concepts of growth and learning. It makes allowance in one's own behavior for differences in others. Whereas domination stifles or frustrates the achievement of individual differences, socially integrative behavior respects differences, advances the psychological processes of differentiation. Integrative behavior is flexible, adaptive, objective, scientific, cooperative. It is an expression of the operation of the democratic processes.

Hypotheses. The previous experimental studies offered consistent evidence in support of the hypotheses that:

1. Domination in one child incites dominative techniques in the companion.
2. Integrative behavior induces cooperation or integrative behavior in the companion.
3. Domination as a psychological technique of behaving is not only different from, but where a potential avenue of escape is left open, it is dynamically unrelated to integrative behavior.

It is assumed that short of the extermination of another individual there is no situation in which the interplay is entirely dominative and also that there is no situation in which the interplay is entirely integrative. But

Anderson
Form 2
May 1938

Date ________________________________
Group ________________________________
Observer ________________________________

RECORD OF DOMINATION—INTEGRATIVE BEHAVIOR

Department of Psychology, University of Illinois

Subject A ___________________________

Subject B ___________________________

	A	B
1. Verbal demands to secure materials ________________	_________	_________
2. Forceful attempts to secure materials ________________	_________	_________
3. Succeeds in securing materials ________________	_________	_________
4. Defends, snatches back materials ________________	_________	_________
5. Verbal commands to direct c's behavior ________________	_________	_________
6. Forceful attempts to direct behavior ________________	_________	_________
7. Succeeds in directing behavior ________________	_________	_________
8. Criticizes, reproves companion ________________	_________	_________
9. Shows common purpose by word or action ________________	_________	_________
10. Verbal request or suggestion to direct c's behavior or secure material ________________	_________	_________
11. Complies with request or suggestion ________________	_________	_________
12. Sets pattern including gesture which companion imitates ______	_________	_________
Dom. Scores (1–8) ________________	_________	_________
Integ. Scores (9–12 plus c–11) ________________	_________	_________

Figure 1.

many situations arise in which the techniques of responding to others can be reliably said to be expressions of domination or of integrative behavior.

TABLE 1

NUMBERS OF CHILDREN USED IN THE PAIRED COMPARISONS

School	Session	Boys	Girls	Total	Total Pairings
X	A.M.	8	11	19	30
	P.M.	8	11	19	96
Y	A.M.	5	6	11	50
Totals		21	28	49	176

Subjects. The subjects used in this study were forty-nine children, twenty-one boys and twenty-eight girls, from three kindergarten groups in two schools. Tabulation of numbers according to sex and group together with the number of pairings is given in Table 1. Most of the children came from homes of superior socio-economic status and practically all were of normal or superior intelligence as measured by the revised Stanford–Binet mental tests.

Methods and Procedure. Children were taken at random in pairs to the testing room where they were allowed to play for five minutes. In the room was a sand box on a low table. In the sand box were a toy sand pail, shovel, sieve, two automobiles, and three rubber toy animals always arranged in the same position when the children arrived. As he led the children into the room the experimenter said, "Here are some toys for you to play with until I come back and get you. We will keep them in the sand box all the time, but you may play with anything you want to." In the morning group of school X most children had two pairings. In the afternoon all children with few exceptions were paired with five others. In school Y also most of the children were paired five times.

Methods of Scoring. The observation blank shown in Figure 1 is based on the blank which was developed for the previous study (2, pp. 350–351). Domination scores in a pairing included all tallies in items 1–8 inclusive. Integration scores included all tallies for items 9–12 inclusive plus the number of the companion's tallies for item 11. The definitions of categories of domination and of integrative behavior in children's responses to each other were taken exactly from the previous study and are not reproduced here. (2, pp. 351–354).

TABLE 2

COEFFICIENTS OF CORRELATION BETWEEN HIGH AND LOW SCORES PER PAIRING FOR CHILD'S WITH COMPANION'S DOMINATION SCORES AND INTEGRATION SCORES RESPECTIVELY; COEFFICIENTS OF CORRELATION BETWEEN DOMINATION SCORES AND CHILD'S OWN INTEGRATION SCORES AND BETWEEN DOMINATION SCORES AND COMPANION'S INTEGRATION SCORES

School	Session	N	r
Domination with Companion's Domination			
X	A.M. & P.M.	63	.85 ± .02
Y	A.M.	24	.82 ± .05
Preschool[1]		513	.68 ± .02
Integration with Companion's Integration			
X	A.M. & P.M.	63	.65 ± .05
Y	A.M.	24	.72 ± .07
Preschool[1]		514	.82 ± .01
Domination with Own Integration			
X	A.M.	30	.16 ± .12
	P.M.	96	—.08 ± .07
	A.M. & P.M.	126	—.01 ± .06
Y	A.M.	48	.16 ± .09
Preschool[1]		1030	—.07 ± .02
Domination with Companion's Integration			
X	A.M.	30	.18 ± .12
	P.M.	96	—.23 ± .07
	A.M. & P.M.	126	—.11 ± .06
Y	A.M.	48	.04 ± .10
Preschool[1]		1030	—.10 ± .02

[1] Data on preschool children obtained from Anderson (2).

Reliability of Observations by Two Observers.[1] The coefficients of reliability of simultaneous and independent recordings by two observers were .98 ± .02 for domination scores on seventy-eight pairings and .90 ± .02 for integration scores on seventy pairings.

The Dynamic Nature of Interactivity as Shown in Domination and Integration Scores. One way of showing whether there is a dynamic relation in domination scores is to correlate the high domination scores in each pairing with the domination scores of the companion.

Table 2 gives the coefficients of correlation of high domination scores with low domination scores for sixty-three pairings in school X and for twenty-four pairings in school Y. The respective coefficients of correlation are .85 and .82. These coefficients show an even higher relationship between domination in one child and domination in the companion than was found in a much larger number of pairings of preschool children. Table 2 includes also the previously reported coefficient of .68 ± .02 obtained from 513 pairings of preschool children. (2, p. 395).

---

[1] The writer was assisted by Gladys Lowe Anderson.

Table 2 gives also the coefficients of correlation of high with low integration scores for kindergarten children in schools X and Y, together with the coefficient obtained in the previous study with preschool children. Sixty-three pairings in school X yielded a coefficient of correlation of .65 and twenty-four pairings in school Y showed a coefficient of .72. These coefficients are lower than, but entirely consistent with, the coefficient of .82 ± .01 obtained from 514 pairings of preschool children (2, p. 397).

This study thus constitutes additional evidence in support of the findings of the previous study. The first two hypotheses mentioned above, that domination incites domination and that integrative behavior in one child tends to induce integrative behavior in the companion, have received consistent support in both investigations.

The Relation of Domination to Integration. Domination scores were also correlated with the child's own integration scores and with the companion's integration scores. Table 2 gives these coefficients for the kindergarten children and reproduces the coefficients obtained previously with preschool children.

Without exception all the coefficients show that in this experimental situation a child's domination scores are unrelated either to his own integration scores or to the integration scores of his companion.

Sex Comparisons. Resumé of Previous Findings. In the previous study of children of preschool age three groups of children were used; one group of Iowa City children superior in intelligence and coming from homes of superior socio-economic status, and two groups of children in an orphanage, one of which (preschool group) attended a nursery school, the other (control) group living in the orphanage but not attending nursery school. When data from all three groups were combined to show sex comparisons of mean domination scores and mean integration scores it was found that girls were more dominating than boys, the critical ratio between the obtained difference and the standard error of the difference being 4.60. It was found also that girls were less integrative than boys, there being ninety-eight chances in one hundred that the obtained difference represented a true difference greater than zero.

Other findings of sex differences in the orphanage children alone may be summarized as follows:

a. The nursery school and control groups of orphanage children showed a consistency of scores in their sex comparisons; they differed only in degree.
b. Girls were more dominating than boys.
c. When sexes were cross-paired, girls decreased in dominative behavior and boys increased in dominative behavior, the difference in the former case being significant; in the latter case there were ninety-two chances in one hundred that the obtained difference represented a true difference greater than zero.
d. Girls and boys were not significantly different in integrative behavior when paired with their own sex.
e. When the sexes were cross-paired, both boys and girls showed decreases in integrative behavior.
f. Boys were slightly more integrative in the cross-pairings of sexes than were girls though the difference was not significant.
g. In cross-pairings, girls showed lower scores than boys in both dominative and integrative behavior. This was true for both nursery school and control groups of children.
h. As regarded total interactivity (the sum of domination and integration scores), the data presented indicated that among these small orphanage children sex differences were already established. (2, pp. 376–388).

Sex Comparisons. Findings of the Present Study. Table 3 gives for the kindergarten children in the present study the mean domination and mean integration scores respectively, together with standard errors of the means and Domination–Integration ratios, for boys when paired with boys, boys when paired with girls, girls when paired with boys, and girls when paired with girls. Table 3 shows also for different comparisons of mean scores the obtained differences between mean scores, standard errors of the differences, crit-

TABLE 3

SEX COMPARISONS IN DOMINATION AND INTEGRATION SCORES. MEANS, STANDARD ERRORS OF THE MEANS, AND DOMINATION–INTEGRATION RATIOS FOR BOYS WHEN PAIRED WITH BOYS, BOYS WHEN PAIRED WITH GIRLS, GIRLS WHEN PAIRED WITH BOYS, AND FOR GIRLS WHEN PAIRED WITH GIRLS

		Domination		Integration		
School X, A. M. + P.M.	Number Pairings	Mean	S.E. Mean	Mean	S.E. Mean	D–I Ratio
Boys with boys	22	4.05	1.09	37.64	3.38	.11
Boys with girls	31	2.90	.68	34.39	2.00	.08
Girls with boys	31	2.87	.67	35.10	1.82	.08
Girls with girls	42	1.43	.33	36.88	1.77	.04

School X, A.M. + P.M.	Higher Mean	Difference	Standard Error of Difference	Critical Ratio	Chances in 100
			Domination		
‡BB with GG	BB	2.62	1.14	2.30	99
BG with GB	BG	.03	.96	.03	52
BB with BG	BB	1.15	1.28	.90	82
GB with GG	GB	1.44	.75	1.92	97
BB with GB	BB	1.18	1.28	.92	82
BG with GG	BG	1.47	.76	1.93	97

School X, A.M. + P.M.	Higher Mean	Difference	Standard Error of Difference	Critical Ratio	Chances in 100
			Integration		
‡BB with GG	BB	.76	3.80	.20	58
BG with GB	GB	.71	2.70	.26	60
BB with BG	BB	3.25	3.91	.83	79
GB with GG	GG	1.78	2.54	.70	76
BB with GB	BB	2.54	3.82	.66	74
BG with GG	GG	2.49	2.67	.93	83

‡ The symbols "BB with GG" indicate that the mean score for boys when paired with boys is being compared with the mean score for girls when paired with girls. "BG with GB" indicate that the mean score for boys when paired with girls is being compared with the mean score for girls when paired with boys.

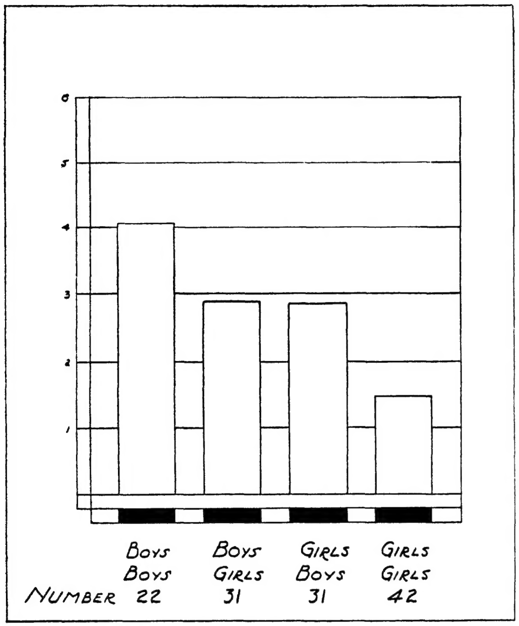
ical ratios, and the chances in 100 that the obtained differences represent true differences greater than zero.

a. *Domination.* Figure 2 shows graphically the mean domination scores given in Table 3, together with a reproduction to scale of the mean domination scores of the orphanage nursery school and control groups taken from Table 21 and Figure 8 of that study. (2, pp. 380, 379)

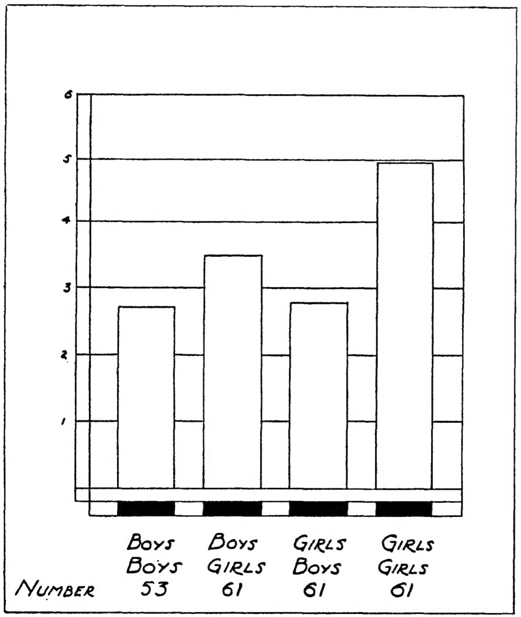
1. *Résumé of the Domination Scores of Orphanage Children.* In the previous study of orphanage children it was found that when a more dominating group was cross-paired with a less dominating group there was a dynamic relation which was sufficient to indicate a tendency toward over-compensation. This dynamic relation together with the over-compensation was shown both in the cross-pairings of the more dominating orphanage nursery school children with the less dominating control group children and in the cross-pairings of the more dominating girls with the less dominating boys. In the cross-pairings of the sexes the orphanage control group showed the same tendencies as the orphanage nursery school children though the changes did not represent significant differences. By way of explanation it was said in the previous report that: "When the little sheep is paired with the big, bad wolf, the little sheep becomes not only less sheepish than the sheep but more wolfish than the wolf. And the wolf becomes more sheepish than the sheep." (2, p. 368).

2. *School X, Morning and Afternoon Groups Combined.* When the data for the morning session were combined with the data for the pairings in the afternoon session, the dynamic relationship of dominative behavior to dominative behavior was still present although there was no tendency toward over-compensation in the cross-pairings.

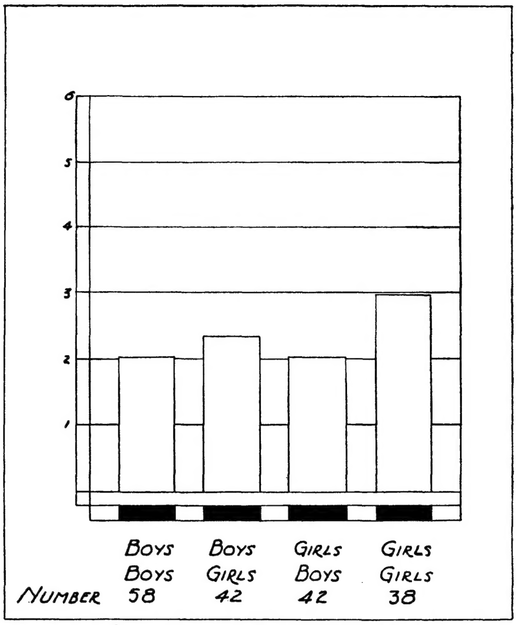
A glance at the domination scores represented in Figure 2 shows that the lowest mean domination scores were obtained by girls when paired with girls. The differences between these scores and the domination scores represented by the three other columns approaches statistical significance in each case. As compared with mean domination scores of boys when paired with boys there are ninety-nine chances in 100 that the obtained difference represents a true difference greater than zero. As compared with the scores for girls when paired with boys there are ninety-seven chances in 100 that the obtained difference is statistically significant.



School X A.M. and P.M.



Orphanage Nursery School



Orphanage Control Group

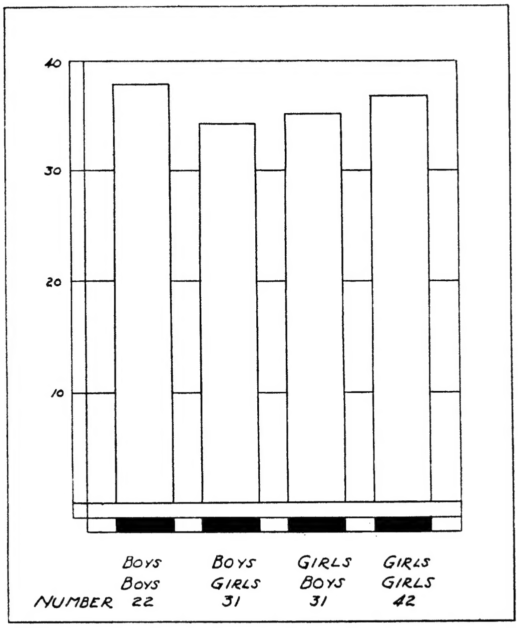
Figure 2. Mean denomination scores.

b. *Integration.* Figure 3 shows graphically the mean integration scores given in Table 3, together with a reproduction to scale of the mean integration scores of the orphanage nursery school and control groups taken from Table 21 and Figure 9 of that study. (2, pp. 380, 384). In comparing domination scores with integration scores it should be noted that Figures 2 and 3 are not drawn to the same vertical scale. One unit of measurement in Figure 2 is equal to six units in Figure 3.

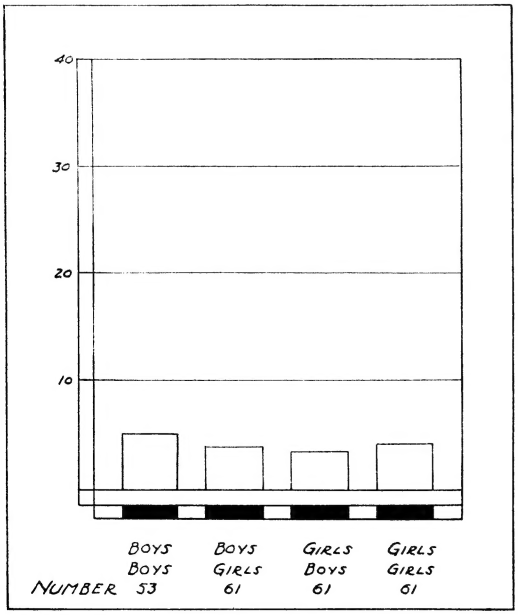
1. *Résumé of the Study of the Orphanage Children.* In the study of orphanage children the nursery school group was found to be less integrative than the control group in the comparison of homogeneous or own-group pairings. In the cross-pairings between nursery and control group children the same dynamic tendencies toward over-compensation were found as was revealed in dominative be-

havior: the low integrative group increased in integration scores and the high integrative group decreased so that the relationship of low to high was reversed.

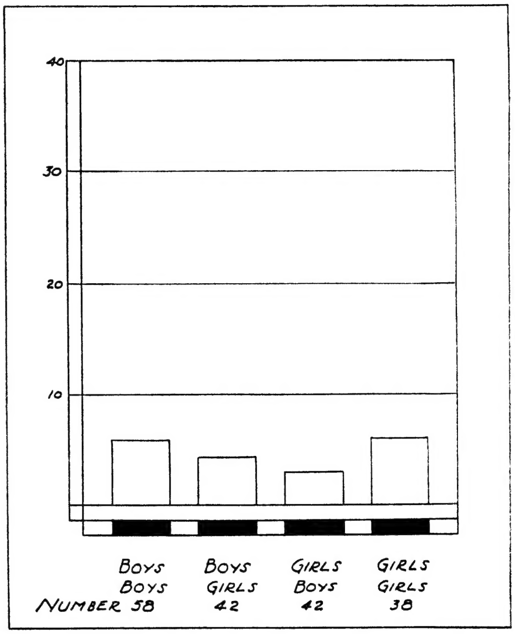
In the cross-pairings of sexes, however, the dynamic tendency toward over-compensation found in mean domination scores was absent in integrative behavior. In both nursery school and control groups the boys when paired with boys were not significantly different from girls when paired with girls. In the cross-pairings of the sexes the mean integration scores of both boys and girls dropped for both the nursery school and control group orphanage children. In the control group the drop in boys' mean score had ninety-six chances in 100 of representing a significant difference; the drop in girls' mean integration score in the cross-pairings had ninety-nine chances in 100 of representing a true difference greater than zero. A justifiable inference is that these decreases in integrative behavior represent an inhibition or shyness in the cross-pairings not present in the own-sex pairings.



School X, A.M. and P.M.



Orphanage Nursery School



Orphanage Control Group

Figure 3. Mean integration scores.

2. *School X, Morning and Afternoon Session Combined.* When the integration scores for morning and afternoon groups were combined for greater numbers, the mean scores for own-sex pairings of boys and girls are not significantly different. In the cross-pairings the mean scores for both sexes dropped. To this extent the data are similar to the data obtained for both orphanage groups. The de-

creases in mean integration scores are, however, not significant.

Domination–Integration Ratios. D–I ratios are obtained by dividing domination scores by integration scores. In the measurement of teachers' contacts with children in another study (3) it was found that with very few exceptions the teachers used dominating techniques much more frequently than they used integrative techniques. Table 3 shows that in the contacts which these kindergarten children had with each other the reverse ratio obtained. With the exception of the behavior of the older boys in the afternoon session of school X there are no mean scores in which domination is even one-tenth the mean integration score.

The D–I ratios of these kindergarten children were different also from those shown in the previous study of children in the orphanage. In that study the D–I ratios were not presented as such, but they were easily obtained (2, p. 380). For the orphanage nursery school children the D–I ratios ranged from .54 to 1.19 and for the orphanage control group the D–I ratios ranged from .34 to .70. These ratios are without exception higher than those obtained with the kindergarten children in the present study. It should be mentioned that almost without exception they are in turn not only lower but considerably lower than the D–I ratios for teachers' contacts with these same kindergarten children.

Relation of Domination and Integration Scores to Mental Age and Chronological Age. When mental age is correlated with the child's domination scores, the coefficient is —.44 ± .09. This coefficient indicates for the kindergarten children in this study a consistent and slightly higher relationship as compared with the data in the previous study with children of preschool age (2, p. 389).

With chronological age domination scores show a zero relation. The coefficient of correlation is .09 ± .11. In the previous study one thousand pairings of preschool children yielded the more definitive zero coefficient of .00 ± .02. With 128 pairings of preschool children, however, when mental age was held constant the coefficient of correlation between chronological age and domination scores was .24 ± .06 (2, p. 389).

The integration scores for kindergarten children in the experimental play situation show a coefficient of .17 ± .11 when correlated with mental age. In the previous study, among 872 pairings a slight positive relation was shown in the coefficient of .30 ± .03. When chronological age was held constant for 128 pairings a coefficient of .34 ± .05 was obtained (2, p. 392).

The kindergarten children in the present study show a zero relation between their integrative scores and chronological age. The coefficient of correlation is .10 ± .11. This is consistent with a zero relation obtained for preschool children on 975 pairings (2, p. 392).

SUMMARY

The present study compared the psychological interplay of kindergarten children in an experimental play situation with data previously reported for preschool children. Interplay was recorded in terms of domination and integrative behavior as defined in previous studies.

As in the previous study of preschool children there were no sex differences in integration scores.

The kindergarten boys were found to be more dominating than the kindergarten girls, these findings constituting a reversal of sex differences obtained in the previous data on preschool children.

Notwithstanding the reversal in sex differences in domination scores the data obtained from the kindergarten children gave only consistent support to the hypotheses advanced for the previous study, that:

1. Domination in one child incites dominative techniques in the companion.
2. Integrative behavior induces cooperative or integrative behavior in the companion.
3. Domination as a psychological technique of behaving is not only different from, but where a potential avenue of escape is left open, it is dynamically unrelated to integrative behavior.

Domination and integration scores in the behavior of the kindergarten children showed either very low or zero relationships with chronological age and mental age.

REFERENCES

1. Anderson, Harold H. An experimental study of dominative and integrative behavior in children of preschool age. Journal of Social Psychology, Vol. 8, No. 3, August 1937, pp. 335–345.
2. ——. Domination and integration in the social behavior of young children in an experimental play situation. Genetic Psychology Monographs, Vol. 19, No. 3, August 1937, pp. 341–408.
3. ——. The measurement of domination and of socially integrative behavior in teachers' contacts with children. Child Development, Vol. 10, No. 2, June 1939, pp. 73–89.
4. ——. Domination and social integration in the behavior of kindergarten children and teachers. Genetic Psychology Monographs, August 1939, Vol. 21, pp. 287–385.